MONTHLY WEATHER MAP

METEOROLOGICAL SERVICE, DOMINION OF CANADA

MARCH 1931

TEMPERATURE

Cold fronts displayed more activity in the region from the lower Mackenzie valley to the western shores of Hudson Bay with several days below seasonal temperatures in northern British Columbia and the northwest. In the southern districts of the northwest provinces southwest winds prevailed sufficiently to raise the average for the month one to eight degrees above the normal temperature. In eastern Canada northeasterly winds were very largely in evidence and mean temperatures in eastern Ontario, Quebec and northern New Brunswick were five to fourteen degrees above normal. On the western shores of Hudson Bay temperatures were about one degree below normal but in the lower Mackenzie valley five to nine degrees below and in northwestern Alberta and north central British Columbia three degrees below normal.

PRECIPITATION

Precipitation was very irregularly distributed. There was an excess over a considerable portion of southern British Columbia and a very general deficiency in New Brunswick and Prince Edward Island. In the interior of the Dominion both excess and deficiency occurred in all provinces.

BRITISH COLUMBIA

The month was one to three degrees cooler than a normal March in the northern interior but one to four degrees warmer than a normal March in the southern interior and on the coast. Precipitation was generally in excess of the normal amount on Vancouver Island and in the Fraser valley. In the southern interior valleys both excess and deficiency occurred. Vegetation is in advance of average on Vancouver Island and the lower mainland.

ALBERTA, SASKATCHEWAN and MANITOBA

Temperatures were four to eight degrees above normal in Manitoba and Saskatchewan in the agricultural regions. In Alberta they averaged three degrees below normal in the northwestern districts and normal to four degrees in excess in the southeast.

Precipitation was very irregularly distributed, some points receiving less than half the usual amount and others twofold or threefold. Generally there was an excess in northwestern Alberta and a portion of southwestern Alberta, as well as in the northern part of Saskatchewan. There were also local excesses in Manitoba. The principal deficiency was in southeastern Alberta and southwestern Saskatchewan with local deficiencies in southeastern Saskatchewan.

For the whole period from the first of September 1930 to the first of April 1931, Alberta on the whole has had about 20 per cent. deficiency, Saskatchewan about 5 per cent. and Manitoba about 10 per cent. deficiency. Stations among the upper waters of the Old Man and St. Mary rivers have reported deficiencies of 20 to 45 per cent. Elsewhere in Alberta reports vary from 25 or 30 per cent. excess to 25 per cent. or more deficiency, deficiencies predominating. In northern Saskatchewan precipitation was generally normal or in excess, in some places by more than 50 per cent. In the south the variations are from 30 per cent. excess to 65 per cent. deficiency. In Manitoba reports vary from 30 per cent. excess to 52 per cent. deficiency, the deficiencies more general in the western districts.

ONTARIO

The month was considerably milder than usual in the north. The excess was generally about 6 degrees from the north shore of Lake Huron to the Albany river and the Lake of the Woods. From the Georgian Bay east to Lake Ontario and the upper St. Lawrence the excess was about 4 or 5 degrees with 6 to 8 degrees in the lower Ottawa valley. Along the shores of Lakes Erie and St. Clair the temperatures averaged normal or slightly in excess.

Precipitation was in excess of normal in the upper Ottawa-Lake Temiscamingue region and locally in southern Ontario. It was deficient from the eastern shores of Lake Superior west to Rainy River. The deficiency for northern Ontario was 24 per cent. and for southern Ontario 7 per cent.

QUEBEC

The month was extremely mild with excess over normal March temperatures of 3 to 16 degrees. Generally the excess was about 9 degrees. The greatest excess was from Lake St. John and the Saguenay north to Fort George on James Bay.

Precipitation was generally deficient although some local excesses occurred. The general deficiency was about 30 per cent.

ATLANTIC PROVINCES

The month was very mild in New Brunswick with some northern stations reporting excess over normal temperature of 9 to 12 degrees. In southern New Brunswick, Prince Edward Island and Nova Scotia the excess was 5 or 6 degrees except in southwestern Nova Scotia where it was 2 to 4 degrees.

Precipitation was 15 to 70 per cent. below normal in New Brunswick and Prince Edward Island while in Nova Scotia there was an excess in some districts and deficiency in others.

HUDSON STRAIT

Mean temperatures were 3 to 7 degrees above normal in the Straits, while on the west shore of Hudson Bay the temperatures were 1 degree below normal. Temperatures in Greenland have fallen below normal.

A. J. CONNOR.

SPECIAL REPORTS

NOTE—Column H is Highest Temperature; Column L is Lowest Temperature; Column P is Precipitation in inches; Column I denotes total of bright sunshine in hours during the month. Column Sg denotes depth of snow on ground in inches, where given.

BRITISH COLUMBIA

STATION	H	L	P	I	STATION	H	L	P	I	STATION	H	L	P	I
Victoria	57°	34°	2.4	122	Agassiz	58°	30°	6.0	81	Cranbrook	55°	7°	0.6	
Shawnigan Lake	56°	25°	5.2		Vancouver	60°	29°	6.3	110	Golden	60°	8°	0.7	
Duncan	61°	24°	3.2		Salmon Arm	58°	21°	1.2	95	Revelstoke	59°	17°	1.6	
Alberni	58°	25°	7.0		Vernon	60°	21°	1.4	97	Field	46°	2°	1.2	
Nanaimo	59°	29°	3.1	121	Summerland	59°	23°	0.4	103	Glacier	42°	2°	6.3	
Courtenay			3.2		Oliver	65°	18°	0.5	94	Kamloops	63°	18°	0.8	150
New Westminster	59°	29°	7.0		Penticton	64°	17°	0.3		Prince George	56°	-16°	2.2	
White Rock	60°	31°	6.4		Kaslo	50°	19°	2.6		Prince Rupert	55°	22°	6.8	
Chilliwack	58°	28°	8.9		Fernie	52°	5°	4.0						

ALBERTA, SASKATCHEWAN AND MANITOBA

STATION	H	L	P	I	Sg.	STATION	H	L	P	I	Sg.
Beaver Lodge	47°	-20°	1.5	154		Birtle	40°	-16°	0.3		T
Edmonton	53°	-26°	1.4	149		Treherne	46°	-18°	1.0		0
Calgary	63°	-10°	1.9			Morris	40°	-12°	0.2		T
Medicine Hat	67°	-9°	0.5	124	0	Morden	45°	-14°	1.5	170	
Scott	51°	-25°	0.8	125		Moose Horn Bay	38°	-21°	1.0		
Battleford	60°	-28°	0.3			Rapid City	44°	-15°	1.0		
Prince Albert	52°	-27°	0.9		T	Great Falls	44°	-15°	0.4		
Swift Current	63°	-14°	0.7	139		Hamiota	45°	-14°	0.0		
Moose Jaw	63°	-15°	1.0	143		Shoal Lake	46°	-16°	1.4		
Qu'Appelle	57°	-19°	1.0	147	0	Oak Bank	44°	-20°	0.5		T
Le Pas	43°	-23°	1.2	146		Pinawa	42°	-12°	0.6		
Minnedosa	45°	-15°	0.8		T	Russell	49°	-18°			
Winnipeg	42°	-9°	0.9	180	T	Sprague	42°	-10°	1.8		
Dauphin	47°	-15°	0.8			Warren	39°	-15°	0.6		
Brandon	47°	-13°	0.7	162	0	Waskada	49°	-11°	1.1		
Treesbank	51°	-17°	0.9		0						

ONTARIO

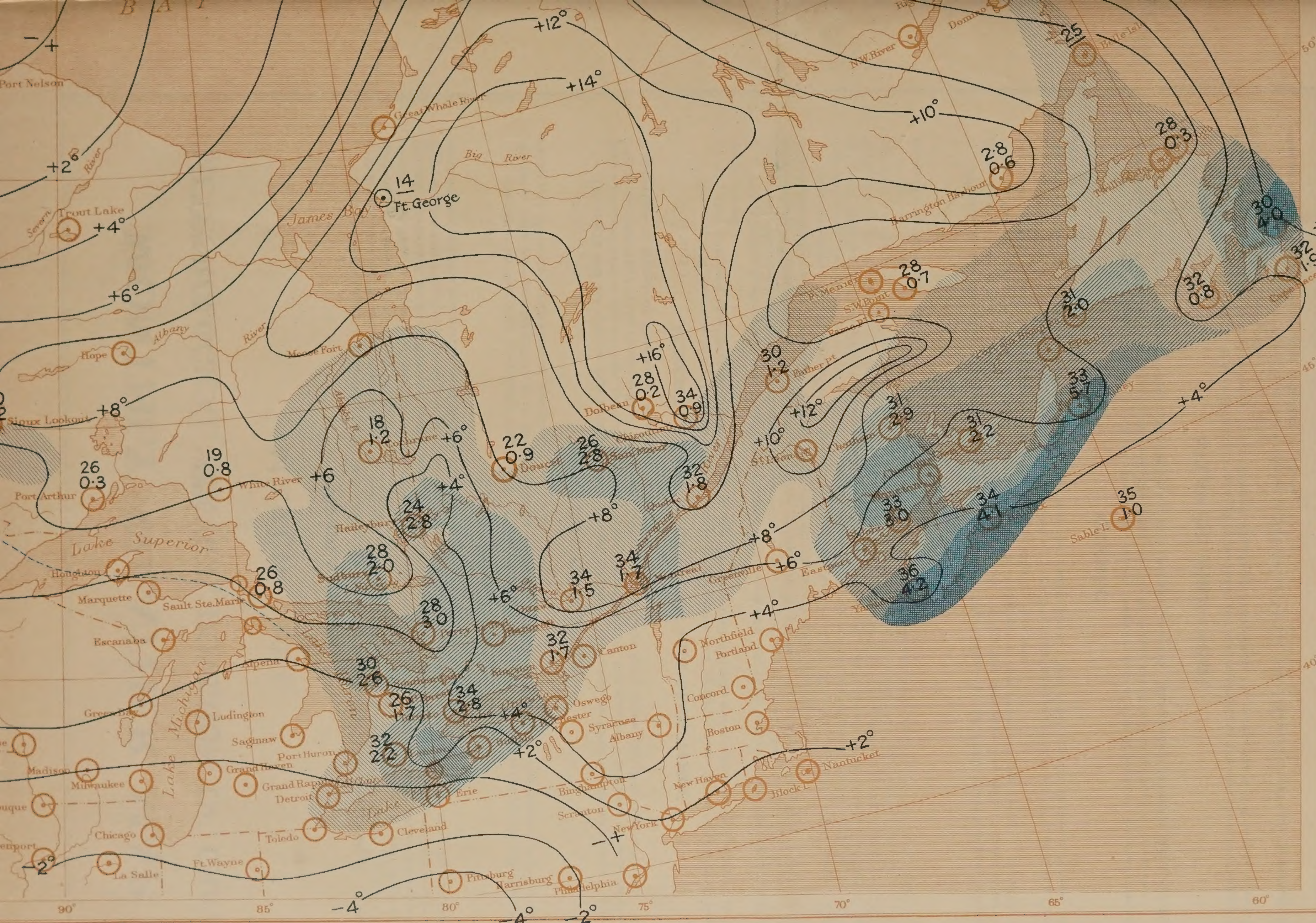
Atikokan	53°	-16°	0.6			Walker's Point	54°	-2°	2.7	124	11
Mine Centre	47°	-10°	0.8		T	Beatrice	47°	5°	2.5		
Ignace	43°	-11°	1.4			Barrie	45°	8°	2.9		
Ingolf	44°	-19°	1.8			Walkerton	55°	17°	1.5		
Kenora	45°	-11°	1.9			Mount Forest	45°	-5°	1.7		
Sioux Lookout	49°	-8°	0.2		0	Brucefield	44°	8°	1.6		T
Port Arthur	40°	4°	0.3		0	Lucknow	42°	0°	1.0		
Quorn	46°	-19°	1.2		8	Southampton	47°	11°	2.6		T
Schreiber	43°	0°	0.1		0	Stratford	47°	13°	2.6		0
Blind River	45°	5°	0.6			London	51°	17°	2.2		
Sault Ste. Marie	47°	0°	0.8			Woodstock	48°	15°	2.0	96	T
White River	47°	-20°	0.8		12	Paris	52°	15°	3.1		
Biscotasing	46°	-19°	1.7			Alton	48°	5°	3.3		8
Chapleau	53°	-20°	2.6		30	Harrow	52°	13°	1.3	83	
Ruel	50°	-13°	1.6		20	Simcoe	49°	17°	3.4		0
Cochrane	49°	-9°	1.2		2	Toronto	48°	19°	2.8	126	T
Haileybury	48°	-2°	2.9		12	Beeton	49°	5°	1.8		0
Heaslip	45°	-11°	2.1			Bloomfield	50°	5°	3.9		0
Kapuskasing	49°	-20°	2.2	68		Queensboro'	46°	3°	2.7		T
Algonquin Park	48°	-9°	1.4			Peterboro'	50°	8°	2.6		T
Madawaska	52°	-6°	1.9			Kingston	52°	14°	1.7	115	0
Montreal River	52°	-17°	2.3			Brockville	60°	20°	1.5		0
North Bay	52°	1°	1.3		3	Morrisburg	54°	6°	1.8		0
Crystal Falls	52°	-11°	1.6		15	Ottawa	55°	7°	1.5		
Providence Bay	48°	3°	2.2			Ottawa (Exp.Farm)	50°	-1°	1.5	113	
Parry Sound	46°	8°	3.0		12	Renfrew	54°	-2°	2.5		
Scotia Junction	45°	-7°	2.0		24	Pembroke	50°	9°	2.8		T

QUEBEC

STATION	H	L	P	I	Sg.
Cedars	49°	11°	1.6		0
Macdonald College	50°	9°	1.6		T
Montréal	51°	14°	1.7	103	T
Farnham	54°	-4°	1.8	119	T
Brome	50°	-6°	3.0		
Nicolet	53°	0°	1.6		
Sorel	49°	0°	2.5		
Thetford Mines	60°	-10°	0.8		
Lennoxville	56°	-11°	2.5	116	
Sherbrooke	53°	-2°	1.9	120	T
Drummondville	58°	1°	1.7		
Beauceville	50°	-10°	1.6		
Lake Mégantic	57°	-9°	0.7		T
Cap Rouge	45°	4°	1.3	108	4
Québec	44°	6°	1.8	122	T
St. Joachim	46°	-2°	0.9		
Armagh	61°	2°	2.7		
Tadoussac	49°	14°	1.8		
Seven Falls	54°	-3°	2.7		
Ste. Anne de la Pocatiére	48°	18°	1.9	116	
La Malbaie	53°	0°	1.3		
Chicoutimi	56°	3°	0.9		0
Roberval	48°	-6°	0.7		T
Albanel	50°	-5°	1.2	103	2
Manouan	58°	-6°	1.9		
Lake Kempt	50°	-14°	2.5		
La Tuque	53°	-3°	2.9		
Chute aux Galets	47°	-4°	0.3		
Lac Onatchiway	56°	1°	0.3		
Chute à Murdock	65°	-8°	1.0		
Kenogami	60°	-9°	0.9		
La Loutre Rapids	50°	-2°	2.2		
Joliette	61°	17°	2.0		
Huberdeau	53°	-4°	1.4		
Mont Laurier	55°	-8°	1.8		0
St. Lin des Laurentides	52°	-2°	1.1		
Maniwaki	54°	4°	1.5		
St. Gabriel de Brandon	48°	14°	1.7		
Abitibi	49°	-10°	1.3		21
La Ferme	49°	-13°	1.3	110	
Ville Marie	50°	-4°	1.6		
Sanmaur	52°	-15°	2.8		10

ATLANTIC PROVINCES

Saint John	53°	22°	3.0	91	T
Aroostook	54°	16°	1.6		8
Bathurst	50°	11°	1.8		
Chatham	56°	12°	2.9		
Edmundston	48°	8°	0.5		2
Fredericton	54°	13°	2.5	91	T
Fredericton (Experimental Farm)	53°	14°	2.5	90	
Gagetown	51°	14°	4.0		T
Grand Falls	52°	15°	1.5		T
Harvey	54°	7°	2.7		9
Musquash	52°	13°	4.3		
McAdam	52°	9°	4.2		T
Rexton	52°	10°	4.4		24
Sussex	55°	8°	2.7		
Woodstock	56°	15°	1.6		
Digby	52°	26°	2.5		
Kentville	53°	15°	3.0	75	
Liverpool	53°	25°	5.5		
Nappan	47°	9°	3.9	67	
Sydney	52°	16°	5.7		12
Truro	57°	18°	1.8		
Upper Stewiacke	60°	15°	1.9		
Wolfville	52°	20°	2.0		
Yarmouth	56°	23°	4.2		
Charlottetown	45°	14°	2.6		
Charlottetown (Experimental Farm)	46°	13°	2.2	64	


Port Nelson
Trout Lake
Severn River
Albany
Hope
Sioux Lookout
Port Arthur
White River
Lake Superior
Houghton
Marquette
Sault Ste. Marie
Escanaba
Alpena
Lake Michigan
Green Bay
Ludington
Saginaw
Port Huron
Grand Haven
Madison
Milwaukee
Grand Rapids
Detroit
Chicago
Toledo
Cleveland
Erie
La Salle
Ft. Wayne
Pittsburg
Harrisburg
Philadelphia
Scranton
Binghampton
New York
New Haven
Block I.
Nantucket
Boston
Concord
Portland
Northfield
Albany
Syracuse
Oswego
Canton
Haileybury
Sudbury
Moose Fort
James Bay
Ft. George
Great Whale River
Big River
Dolbeau
Greenville
Eastport
Father Pt.
S.W. Point
Harrington Harbour
N.W. River
Belle Isle
Sable I.
90°
85°
80°
75°
70°
65°
60°
40°
45°
50°

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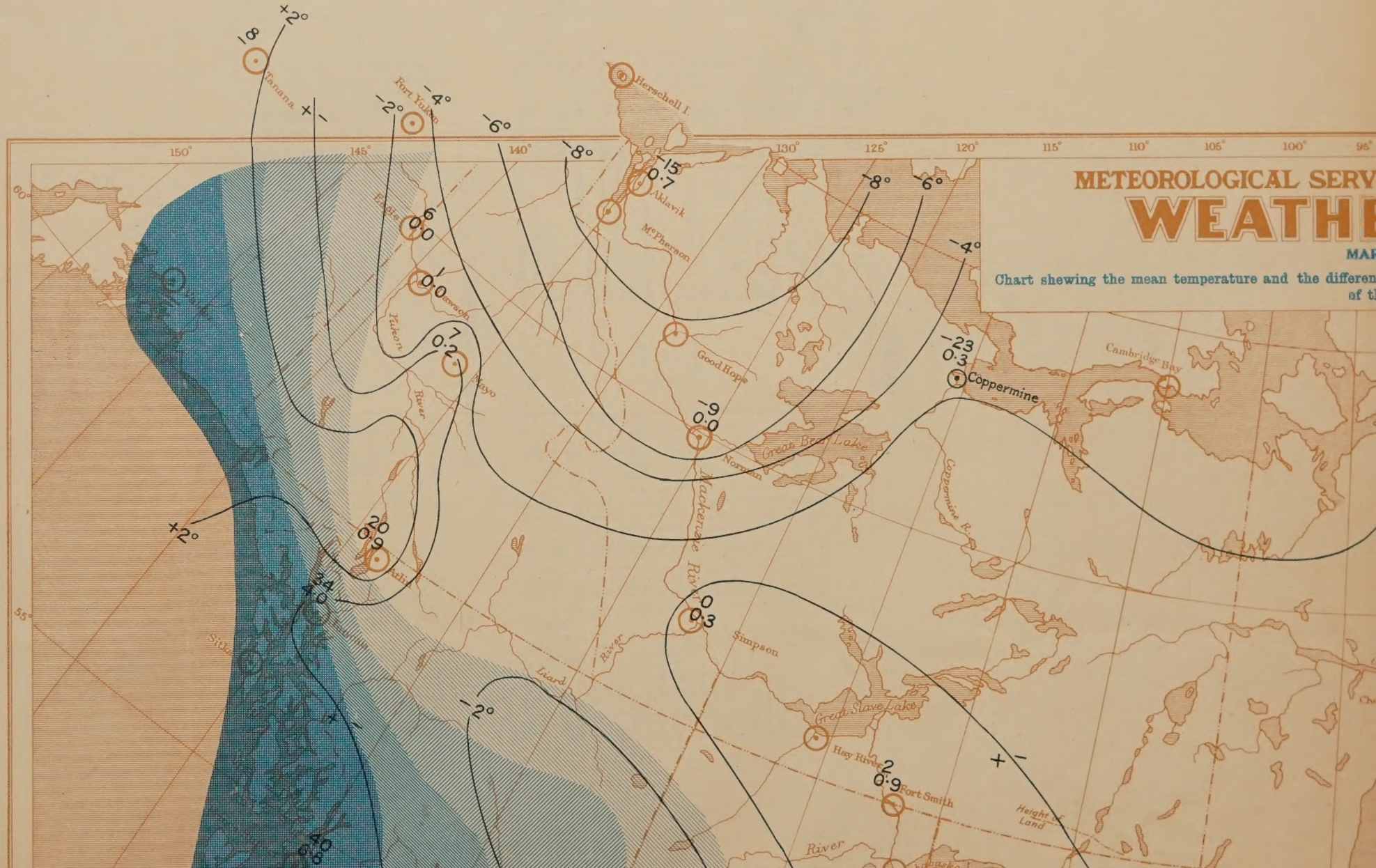
R MAP
1931
om normal mean temperature; also total precipitation
onth.
Ellesmere Island
Pond's Inlet
Godhaven
Angmagsalik
Godthaab
Julianehaab
Pangnirtung
Nottingham I.
Cape Wolstenholme
Wakeham
Hopes Advance
Fort Chimo
Fort Burwell
Resolution
90°
85°
80°
75°
70°
65°
60°
55°
50°
45°
40°
35°
60°
55°
+8°
+6°
+4°
+2°
+-
-2°
-4°
-6°
-18
0·2
0·0
2
0·1
5
0·2
3
14
21
16

REFERENCES.
The upper Figures give the mean Temperature.
The lower Figures give the precipitation in inches.
The Black lines shew the difference from the normal mean Temperature.
The shading shews approximately the precipitation of the month.
Less than 1 inch
Less than 2 inches
Less than 3 inches
Less than 4 inches
More than 4 inches
50°
45°
40°
120°
115°
110°
105°
100°
95°
Triangle L.
Fort Steele
Kelly Creek
Edmonton
Athabasca Landing
Peace River Landing
Grouard
Fort Vermilion
Ile à la Crosse
Mt Murray
Churchill River
Lac la Ronge
Nelson R.
Hayes R.
Pikwitonei
Norway House
Pas
Pelly
Tatoosh I.
North Head
Seattle
Tacoma
Portland
North Yakima
Walla Walla
Lewiston
Columbia
Spokane
Wallace
Kalispell
Missoula
Helena
Havre
Calgary
Medicine Hat
Swift Current
Moose Jaw
Qu'Appelle
Saskatoon
Prince Albert
Battleford
Minnedosa
Winnipeg
Red River
Williston
Devils Lake
Miles City
Bismarck
Moorhead
Duluth
Ellendale
Yellowstone Park
Billings
Sheridan
Pocatello
Rapid City
Pierre
Huron
St Paul
Lander
Valentine
Charles City
Sioux City
Salt Lake City
Cheyenne
North Platte
Omaha
Des M
+4°
+6°
+8°
+2°
−2°
0
18 1·5
28 2·2
20 1·4
42 0·8
46 6·3
44 2·4
0·8
26 1·9
22 0·3
18 1·9
12 1·2
0·8
30 0·5
24 0·7
24 1·0
20 1·0
18 0·8
20 0·9
21 1·9


METEOROLOGICAL SERV
WEATHE
MAR
Chart shewing the mean temperature and the differen
of th
150°
145°
140°
130°
125°
120°
115°
110°
105°
100°
95°
60°
55°
Herschell I.
Tanana
Fort Yukon
Aklavik
McPherson
Good Hope
Coppermine
Cambridge Bay
Great Bear Lake
Great Slave Lake
Hay River
Fort Smith
Simpson
Liard
River
Yukon
Mayo
Norman
Mackenzie River
Coppermine R.
Height of Land
Sitka
-8°
-6°
-4°
-2°
+2°
+ −
-15
0·7
-6
0·0
-1
0·0
-7
0·2
-23
0·3
-9
0·0
20
6·9
24
4·0
0
0·3
-2°
2
6·9
46
6·8